

IN THE CLAIMS

1-14. (canceled)

15. (currently amended) An apparatus for receiving, separating and decoding a data stream, comprising~~The apparatus of claim 14, wherein:~~

a receiver operable to produce an initial data stream containing multiplexed data packets representing a plurality of data programs from at least one signal received over a communication channel, the multiplexed data packets representing the plurality of data programs each include~~including~~ an original packet identifier; and

a separating device operable to produce an intermediate data stream containing multiplexed data packets representing one or more selected ones of the data programs chosen from the initial data stream, the separating device including:

a multiplexer operable to produce a multiplexed data stream including the initial data stream,

a separator operable to extract the selected data programs from the multiplexed data stream, and

~~the separating device includes~~ an interchange unit operable to change the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet, and to rewrite the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to the separating device producing the intermediate data stream; and

a decode processor operable to decode the intermediate data stream such that the multiplexed data packets representing the selected data programs are associated with one another.

16-17. (canceled)

18. (currently amended) An apparatus for receiving, separating and decoding a data stream, comprising~~The apparatus of claim 17, wherein:~~

a receiver operable to produce an initial data stream containing multiplexed data packets representing a plurality of data programs from at least one signal received over a communication channel, the multiplexed data packets representing the plurality of data programs each include~~including~~ an original packet identifier; and

a separating device operable to produce an intermediate data stream containing multiplexed data packets representing one or more selected ones of the data programs chosen from the initial data stream, the separating device including:

a separator operable to extract the selected data programs from the initial data stream,

a multiplexer operable to produce a multiplexed data stream including each of the selected data programs extracted by the separator, and

~~the separating device includes~~ an interchange unit operable to change the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet, and to rewrite the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet

prior to the separating device producing the intermediate data stream; and

a decode processor operable to decode the intermediate data stream such that the multiplexed data packets representing the selected data programs are associated with one another.

19-20. (canceled)

21. (currently amended) An apparatus for inputting an initial data stream containing multiplexed data packets representing a plurality of data programs received over a communication channel and for producing an intermediate data stream including one or more selected data programs~~The apparatus of claim 20, wherein the multiplexed data packets each include~~ing an original packet identifier, the apparatus further including~~comprising:~~

a multiplexer operable to produce a multiplexed data stream including the initial data stream and the one or more selected data programs;

a separator operable to extract the selected data programs from the multiplexed data stream; and

an interchange unit operable to change the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet, and to rewrite the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to the separating device producing the intermediate data stream.

22. (previously presented) The apparatus of claim 21, wherein the interchange unit includes:

a first interchange unit operable to change the original packet identifier of the first multiplexed data packet to the unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of the second multiplexed data packet; and

a second interchange unit operable to rewrite the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to the separating device producing the intermediate data stream.

23. (canceled)

24. (currently amended) An apparatus for inputting an initial data stream containing multiplexed data packets representing a plurality of data programs received over a communication channel and for producing an intermediate data stream including one or more selected ones of the data programs~~The apparatus of claim 23, wherein the multiplexed data packets each include~~ing an original packet identifier, the apparatus further comprising:

a separator operable to extract each of the selected data programs from the initial data stream;

a multiplexer operable to produce a multiplexed data stream including the selected data programs extracted by the separator; and

an interchange unit operable to change the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet, and to rewrite the unique packet identifier of the first multiplexed

data packet back to the original packet identifier of the first multiplexed data packet prior to ~~the separating device~~ producing the intermediate data stream.

25. (previously presented) The apparatus of claim 24, wherein the interchange unit includes:

a first interchange unit operable to change the original packet identifier of the first multiplexed data packet to the unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of the second multiplexed data packet; and

a second interchange unit operable to rewrite the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to the separating device producing the intermediate data stream.

26-27. (canceled)

28. (currently amended) A method for decoding packet data, comprising~~The method of claim 27, wherein the multiplexed data packets representing the plurality of data programs each include an original packet identifier, and the step of producing the at least one intermediate data stream includes:~~

producing an initial data stream containing multiplexed data packets representing a plurality of data programs from at least one signal received over a communication channel, the multiplexed data packets each including an original packet identifier;

producing an intermediate data stream containing multiplexed data packets representing one or more selected ones

of the data programs chosen from the initial data stream, the step of producing the intermediate data stream including:

producing a multiplexed data stream including the initial data stream,

extracting the selected data programs from the multiplexed data stream,

changing the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet;—, and

rewriting the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to producing the at least one intermediate data stream; and

decoding the intermediate data stream such that the multiplexed data packets representing the selected data programs are associated with one another.

29-30. (canceled)

31. (currently amended) A method for decoding packet data, comprising~~The method of claim 30, wherein the multiplexed data packets representing the plurality of data programs each include an original packet identifier, and the step of producing the at least one intermediate data stream further includes:~~

producing an initial data stream containing multiplexed data packets representing a plurality of data programs from at least one signal received over a communication channel, the multiplexed data packets each including an original packet identifier;

producing an intermediate data stream containing multiplexed data packets representing one or more selected ones

of the data programs chosen from the initial data stream, the step of producing the intermediate data stream including:

extracting the selected data programs from the initial data stream,

producing a multiplexed data stream including each of the extracted data programs,

changing the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet;—, and

rewriting the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to producing the at least one intermediate data stream; and

decoding the intermediate data stream such that the multiplexed data packets representing each of the one or more selected data programs are associated with one another.

32-33. (canceled)

34. (currently amended) A method of producing an intermediate data stream from an initial data stream containing multiplexed data packets representing a plurality of data programs received over a communication channel, the intermediate data stream including one or more selected ones of the data programs~~The method of claim 33, and wherein the multiplexed data packets representing the plurality of data programs each include~~ing an original packet identifier, the method further comprising:

producing a multiplexed data stream including the initial data stream and the one or more selected data programs;

extracting the selected data programs from the multiplexed data stream;

changing the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet; and

rewriting the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to producing the ~~at least one~~ intermediate data stream.

35. (canceled)

36. (currently amended) A method of producing an intermediate data stream from an initial data stream containing multiplexed data packets representing a plurality of data programs received over a communication channel, the intermediate data stream including one or more selected ones of the data programs~~The method of claim 35, wherein and the multiplexed data packets representing the plurality of data programs each including~~ an original packet identifier, the method ~~further~~ comprising:

extracting each of the selected data programs from the at least one initial data stream;

producing a multiplexed data stream including the extracted data programs;

changing the original packet identifier of a first multiplexed data packet to a unique packet identifier when the original packet identifier of the first multiplexed data packet is identical to the original packet identifier of a second multiplexed data packet; and

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rewriting the unique packet identifier of the first multiplexed data packet back to the original packet identifier of the first multiplexed data packet prior to producing the ~~at least one~~ intermediate data stream.